

Algorithm

- ⇒ Introduction to Dynamic Programming Approach
- ⇒ Coin change DP
- ⇒ 0/1 Knapsack
- ⇒ Graph Representation
- ⇒ Breadth First Search
- ⇒ Depth First Search basic and DFS Applications
: Cycle Finding
- ⇒ DFS Application : Topological Sort & Strongly Connected Components
- ⇒ Minimum Spanning Tree (MST):
Basics, Prim's, and Kruskal's Algorithm
- ⇒ Single Source Shortest path (SSSP):
Basic, Dijkstra's Algorithm and Bellman Ford Algorithm.
- ⇒ All pairs Shortest Path:
Floyd - Warshall algorithm.

Bangladesh Studies

- ❑ Language Movement and Discriminations towards East Pakistan.
- ❑ Six Point Movement and Liberation War of Bangladesh.
- ❑ Economy of Bangladesh.
- ❑ Industrial Sector of Bangladesh.
- ❑ Urbanization & Rural Development of Bangladesh.
- ❑ Environment Degradation & Climate Change.

Electronic Device & Circuit

Mathematical Example

❑ Chapter 9:

Example: 9.1—9.7, 9.10, 9.19—9.22, 9.25—9.26

❑ Chapter: 11:

Example: 11.1—11.10

Chapter: 13

Example: 13.1 - 13.8

Chapter: 14

Example: 14.3, 14.6

Chapter: 19

Example: 19.1 - 19.5, 19.30 - 19.31

Chapter: 5

Example: 5.3, 5.5 - 5.7 (Alexander & Sadiku)

Engineering Mathematics

1. \Rightarrow Linear ODE with first degree and higher order with variable coefficients.

2. \Rightarrow Laplace Transformation

\rightarrow Laplace Transformation

\rightarrow Inverse Laplace Transformation

\rightarrow Application

3. Fourier Transformation :

4. Fourier Series.

Discrete Mathematics

▣ Graph

▣ Graph Terminologies and Isomorphism.

▣ Relation and Graph Representation.

▣ Graph Bipartite

❑ Spanning Tree & Minimum Spanning Tree.

❑ Mathematical Induction.

❑ Rules of Inferences.

Art of Living

❑ Chapter: 7 → Defining Digital Media, and Technology Literacy

❑ Chapter: 8 → Innovation and Social Entrepreneurship in the IT Industry.

❑ Chapter: 9 → Etiquette, Work Ethics and Integrity in the Digital Age

❑ Chapter: 11 → Adaptation of new technology.

❑ Chapter: 13 → Industrial Ethics and Daily Values.